WHAT IS CLAIMED IS:

SUB A1

1. An electrophotographic toner comprising at least a binder resin, colorant, and a negative charge control agent,

wherein said binder resin is a polyester and/or a polyol, and

said negative charge control agent comprises components which are (1) sulfonic-acid containing monomers, (2) aromatic monomers having electron-withdrawing groups, and (3) acrylate monomer and/or methacrylate monomer.

2. The electrophotographic toner according to claim 1, wherein ratio of said sulfonic-acid containing monomers to weight of resin negative charge control agent is between 1 to 30 % by weight; ratio of aromatic monomers having electron-withdrawing groups to weight of said resin negative charge control agent is between 1 to 80 % by weight; and ratio of said acrylate and/or methacrylate monomers to weight of said resin negative charge control agent is between 10 to 80 % by weight.

3. The electrophotographic toner according to claim 1, wherein said aromatic monomers having electron-withdrawing groups are, phenyl maleimides and phenyl itaconimides, substituted with chlorine atoms or nitro groups.

4. The electrophotographic toner according to claim 1,

wherein said negative charge control agent further contains aromatic vinyl monomers as its component unit.

5. The electrophotographic toner according to claim 4, wherein percentage of said aromatic vinyl monomers contained in the resin negative charge control agent is 30 % or less by weight.

6. The electrophotographic toner according to claim 1, wherein dispersion particle size of said resin negative charge control agent is between 0.05 and 1.50 μm length-wise, and between 0.02 and 1.00μm breadth-wise.

7. The electrophotographic toner according to claim 1, wherein temperature at which an apparent viscosity of said resin negative charge control agent becomes 10^4 P (where 10^4 P = 10^4 g/cm·s) is between 85 and 110 °C.

8. The electrophotographic toner according to claim 1, wherein volatile matter content in said resin negative charge control agent is 5 % or less by weight.

9. The electrophotographic toner according to claim 1,

wherein volume resistivity of said resin negative charge control agent is between 9.5 and 11.5 log Ω·cm.

10. The electrophotographic toner according to claim 1, wherein weight average molecular weight of said resin negative charge control agent is between 5000 and 100000.

11. The electrophotographic toner according to claim 1, wherein ratio of said resin negative charge control agent to base toner particles is between 0.1 and 20 % by weight.

12. The electrophotographic toner according to claim 1, wherein acid value of said binder resin is 20 mg KOH/g or less.

13. A one-component developer which contains an electrophotographic toner, said electrophotographic toner comprising at least a binder resin, colorant, and a negative charge control agent,

wherein said binder resin is a polyester and/or a polyol, and

said negative charge control agent comprises components which are (1) sulfonic-acid containing monomers, (2) aromatic monomers having electron-withdrawing groups, and (3) acrylate monomer and/or methacrylate monomer.

14. A two-component developer which contains a carrier and an electrophotographic toner, said electrophotographic toner comprising at least a binder resin, colorant, and a negative charge control agent,

wherein said binder resin is a polyester and/or a polyol, and

said negative charge control agent comprises components which are (1) sulfonic-acid containing monomers, (2) aromatic monomers having electron-withdrawing groups, and (3) acrylate monomer and/or methacrylate monomer.

15. The two-component developer according to claim 14, wherein said carrier is coated with a resin.

SUB A2

16. A container encasing a one-component developer which contains an electrophotographic toner, said electrophotographic toner comprising at least a binder resin, colorant, and a negative charge control agent,

wherein said binder resin is a polyester and/or a polyol, and

said negative charge control agent comprises components which are (1) sulfonic-acid containing monomers, (2) aromatic monomers having electron-withdrawing groups, and (3) acrylate monomer and/or methacrylate monomer.

17. A container encasing a two-component developer which contains a carrier and an electrophotographic toner, said electrophotographic toner comprising at least a binder resin, colorant, and a negative charge control agent,

wherein said binder resin is a polyester and/or a polyol, and

said negative charge control agent comprises components which are (1) sulfonic-acid containing monomers, (2) aromatic monomers having electron-withdrawing groups, and (3) acrylate monomer and/or methacrylate monomer.

18. An apparatus for forming image comprising a container encasing a one-component developer, said one-component developer containing an electrophotographic toner, said electrophotographic toner comprising at least a binder resin, colorant, and a negative charge control agent,

wherein said binder resin is a polyester and/or a polyol, and

said negative charge control agent comprises components which are (1) sulfonic-acid containing monomers, (2) aromatic monomers having electron-withdrawing groups, and (3) acrylate monomer and/or methacrylate monomer.

19. An apparatus for forming image comprising a container

encasing a two-component developer, said two-component developer containing a carrier and an electrophotographic toner, said electrophotographic toner comprising at least a binder resin, colorant, and a negative charge control agent,

wherein said binder resin is a polyester and/or a polyol, and

said negative charge control agent comprises components which are (1) sulfonic-acid containing monomers, (2) aromatic monomers having electron-withdrawing groups, and (3) acrylate monomer and/or methacrylate monomer.

20. A method of forming image using a one-component developer which contains an electrophotographic toner, said electrophotographic toner comprising at least a binder resin, colorant, and a negative charge control agent,

wherein said binder resin is a polyester and/or a polyol, and

said negative charge control agent comprises components which are (1) sulfonic-acid containing monomers, (2) aromatic monomers having electron-withdrawing groups, and (3) acrylate monomer and/or methacrylate monomer,

the method comprising the steps of:

forming a latent image on a latent image substrate;

developing the latent image, formed on the latent image

substrate, using the one-component developer on a developer substrate;

transferring the developed toner image onto a transfer substrate; and

heating the toner image on the transfer substrate thereby fixing the image onto the transfer substrate.

21. The method of forming image according to claim 20, further comprising a step of forming a thin layer of the one-component developer on the developer substrate before developing the latent image,

wherein when developing the latent image the thin layer of the one-component developer is contacted or non-contacted with the latent image substrate, in said development step.

22. The method of forming image according to claim 20, wherein latent images having colors different from each other are formed on the latent image substrates respectively by each color when forming the latent image on the latent image substrate;

using plurality of multi-color development apparatuses each provided with said developer substrate, and a development blade that regulates evenly

layer-thickness of the one-component developer supplied onto said developer substrate, each colored latent image is developed onto said latent image substrate with the correspondingly colored developer held on said developer substrate, when developing the latent image; and

said transfer substrate is abutted onto said latent image substrate surface using a transfer unit, and developed toner images differently colored from each other are electrostatically transferred onto said transfer substrate sequentially by each color, when transferring the developed toner image.

23. A method of forming image using a two-component developer which contains a carrier and an electrophotographic toner, said electrophotographic toner comprising at least a binder resin, colorant, and a negative charge control agent,

wherein said binder resin is a polyester and/or a polyol, and

said negative charge control agent comprises components which are (1) sulfonic-acid containing monomers, (2) aromatic monomers having electron-withdrawing groups, and (3) acrylate monomer and/or methacrylate monomer,

the method comprising the steps of:

forming a latent image on a latent image substrate;

developing the latent image, formed on the latent image substrate, using the two-component developer on a developer substrate;

transferring the developed toner image onto a transfer substrate; and

heating the toner image on the transfer substrate thereby fixing the image onto the transfer substrate.

24. The method of forming image according to claim 23, further comprising a step of forming a thin layer of the two-component developer on the developer substrate before developing the latent image,

wherein when developing the latent image the thin layer of the two-component developer is contacted or non-contacted with the latent image substrate, in said development step.

25. The method of forming image according to claim 23, wherein latent images having colors different from each other are formed on the latent image substrates respectively by each color when forming the latent image on the latent image substrate;

using plurality of multi-color development apparatuses each provided with said developer substrate, and a development blade that regulates evenly layer-thickness of the two-component developer supplied

onto said developer substrate, each colored latent image is developed onto said latent image substrate with the correspondingly colored developer held on said developer substrate, when developing the latent image; and

said transfer substrate is abutted onto said latent image substrate surface using a transfer unit, and developed toner images differently colored from each other are electrostatically transferred onto said transfer substrate sequentially by each color, when transferring the developed toner image.

Add A3